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THE PHILOSOPHICAL REVIEW.

THE PSYCHOLOGY OF THE AFFECTIONS IN PLATO AND ARISTOTLE.

II. ARISTOTLE.

ARISTOTLE'S treatment of the affections, like Plato's, is conditioned throughout by other than purely psychological interests. His principal discussion of pleasure is in the tenth book of the *Nicomachean Ethics*, where the primary aim is to define the relation of pleasure to the pursuit of the moral end; and his principal discussion of the emotions is in the second book of the *Rhetoric*, where the main object is to relate the emotional susceptibilities of an audience to the art of persuasion. In the *De Anima*, where psychological problems are handled more from the point of view of a philosophy of mind, with the emphasis on cognition, references to the phenomena of the affective life are few and incidental. Nevertheless, wherever Aristotle does treat of these phenomena, whether incidentally or in a connected discussion subordinate to an ulterior purpose, he seems to be genuinely interested in the facts. His inventory of the facts is far fuller than Plato's, his analysis more thorough. In constructing a theory there is always a certain selection of the material, a guiding idea and a mutual adaptation and molding of the two as the theory develops. But the emphasis may be now on the one factor, and now on the other. Plato's emphasis is on the ideal factor, Aristotle is more careful in the manipulation of the material. Thus in the doctrine of pleasure Aristotle's theory seems to be more molded on the facts, whereas Plato makes the im-

pression of fitting the facts to the requirements of ideas. The antithesis is not absolute; both writers deal reflectively with experience, and neither succeeds in clearly discriminating the psychological from logical and practical points of view. But Aristotle comes nearest to such discrimination of any ancient writer, and although, as has been said, "he studied psychology as a philosopher and was chiefly interested in it as it bore on philosophical problems,"¹ he nevertheless exhibits in a remarkable degree the spirit of scientific detachment in surveying and handling his material. Hence his account of the emotions, imperfect as it is, and particularly his conception of pleasure as a concomitant of the normal exercise of vital function, though that too is incomplete, are not only of importance historically, but contain large elements of permanent psychological value.

Aristotle begins the discussion of pleasure by criticizing the definition of it as a kind of motion (*κίνησις*), especially Plato's view of it as originating in a process (*γένεσις*) of the replenishment of a deficiency, and, therefore, as conditioned on a state of pain. Pleasure cannot be a motion, he argues, for motion implies rate; but while the transition to pleasure may be quick or slow, these terms are not applicable to the pleasure itself. The conception of it as a process of replenishment and as conditioned on pain was suggested, he thinks, by the pains and pleasures of nutrition, such as hunger and thirst and the satisfaction of these wants. But this conception, besides making pleasure a bodily state, is plainly inadequate to meet the case of many pleasures in which no pain or want precedes.² Plato, as we have seen, admitted and glorified these pure, painless pleasures without, however, being able to explain them in terms of his original theory. As against the view that pleasure is a motion or process, Aristotle maintains that it is something which at any moment of its actual existence is naturally complete. Duration is essential to motion, but not to pleasure; even a momentary pleasure is wholly and entirely pleasure. Like the act of vision or a mathematical point, pleasure is without beginning, middle or end.³

¹ R. D. Hicks, *Aristotle's De Anima*, p. lxxii, 1908.

² *Eth. Nic.*, X, 3, 4-7. Cf. *Magn. Mor.*, II, 7, 1204 b 5; *Eth. Eud.*, VI, 15, 1154 b 27.

³ *Eth. Nic.*, I, c., 4, 4.

This criticism is not, of course, meant to deny that pleasures exist in time, that they persist for a longer or shorter time, that within a given extent of time they may vary in intensity; nor does it necessarily deny that all pleasure rests upon and is connected with some kind of organic movement. Aristotle is not here looking at the psychical process, a movement in the flow of consciousness to be observed and described, nor is he dealing with a physiological theory of such a process. He is simply isolating a moment or element in immediate experience and enquiring into its logical definition, and his point is that, when thus isolated, the moment in question is seen to be improperly defined as a motion or transition to an end beyond itself, but is itself a fully realized mode of conscious being, whatever its conditions and however manifold its relations. The contention may seem futile and to ignore the element of truth in the opinions criticized, which, though crudely identifying a psychical content with a physical change, had at least the merit of indicating conditions of the origin and fluctuations of the experience. But the criticism had the value of exposing precisely this crudity and of bringing the discussion on to psychological ground; it showed the necessity of avoiding hasty generalizations and misleading analogies; and it formed an indispensable beginning in the construction of Aristotle's own more inclusive and penetrating theory.

Here, however, we are confronted by an apparent contradiction in Aristotle himself. In the passages cited above he denies that pleasure is a movement or process, but in a passage in the *Rhetoric* he himself describes it as "a certain motion of the soul and a sudden and sensible settling into the normal state," pain being the opposite,—a description strikingly similar to Plato's.¹ The difficulty may be met in various ways. We might explain it, for instance, by Aristotle's broad use of the term "motion" (*κίνησις*) as including any sort of change.² Aristotle, it may be said, does not deny in the *Ethics* that pleasure can be regarded as a 'motion' from any and every point of view; all that he

¹ *Rhet.*, I, II, 1369 b 33: *κίνησιν τινα τῆς ψυχῆς καὶ κατάστασιν ἀθρόαν καὶ αἰσθητὴν εἰς τὴν ὑπάρχουσαν φύσιν*; Plato, *Tim.*, 64 D.

² See Bonitz, *Index arist.*, s. v.

insists on is that it is not a 'motion' in a sense that would conflict with the conception of it as a fully realized state of consciousness. Pleasure and pain certainly imply change; they are according to Aristotle elsewhere "qualitative changes of the faculty of sense," and he notes that pleasure, in man at least, cannot be continued uninterruptedly.¹ Or we may refer to Aristotle's technical conception of motion as not mere transition to an end, but as a process in which the quality of the end is immanent. On this reading of the passage pleasure would here be defined by metonymy in terms of the process of its attainment, the end and the process being 'formally' the same thing in different stages of its attainment. Frequently the latter part of the description is taken as exegetical, the "motion of the soul" being interpreted as *consisting in* "the sudden and sensible settling into the natural state;" and this is even supposed to mark the critical difference between Aristotle's doctrine and Plato's, the "motion" with Aristotle being, it is said, not, as with Plato, a "process of origination," but an "unmediated consciousness."² All such explanations assume that we have here to do with a precisely worded scientific definition. But what if the wording was not intended to be scientifically exact? Aristotle, when careful in his language, plainly distinguishes between the changes which introduce a quality and the quality itself.³ Here the distinction is obliterated. If now we compare this passage in the *Rhetoric* with the corresponding passage in the *Timæus* of Plato, we can hardly escape the conviction that both passages express substantially the same doctrine. Dogmatically, therefore, the teaching of the *Rhetoric* would be at variance with that of the *Ethics*. But it is to be observed that the description in the *Rhetoric* is not put forth dogmatically, but in the form of an

¹ ἀλλοιώσεις τοῦ αἰσθητικοῦ, *Phys.*, VII, 3, 247 a 15; *Eth. Nic.*, X, 4. 9.

² "Das ἀθρόα soll hier eben die κίνησις in dem Sinne erklären, dass mit letzterer nicht wie bei Plato eine γένεσις, ein Entstehungsprozess, gemeint sei, sondern ein unvermitteltes Bewusstsein des naturgemässen Zustandes." Siebeck, *Gesch. d. Psychol.*, p. 489. But ἀθρόον is the very term used by Plato in the passage cited. Lafontaine, *Le plaisir d'après Pl. et Arist.*, p. 54, interprets: "Pleasure is as it were a movement of the soul, or rather a sudden and sensible return of the soul to its proper state." The gloss is indicated by the italics.

³ *Phys.*, VII, 3, 247 a 19.

assumption.¹ Hence we may conclude with a fair degree of probability that Aristotle did not intend that it should be taken as a formally precise definition, but that he adopted as sufficiently exact for the purpose in hand, the purpose, namely, of the rhetorician, a proposition generally understood and a conception more or less currently accepted, and especially by Platonists. In any case it is to be noted that in the discussion which follows, the emphasis falls not on the idea of pleasure as a process, or as a sudden settling, but on the normal and natural conditions in connection with which the affection arises.

Setting aside, then, the questionable definition as, except for this emphasis, relatively unimportant, we are now prepared for the further positive statement of Aristotle's doctrine of pleasure. The doctrine in the briefest and simplest terms is this: pleasure is the concomitant of the normal exercise of the faculties of a living, conscious being. The exercise or actual realization (*ἐνεργεῖν*, *ἐνέργεια*) of any faculty, or of the natural potentialities of life as a whole, is pleasant, and the pleasure is proportioned to the completeness of the realization. On the other hand, any impediment experienced in the process of exercising a faculty, of expressing a function, is felt as pain. Thus in order to experience pleasure, the faculty must be in good condition and the object of its activity appropriate. When the faculty is in the best condition and the object affords the fullest scope to its exercise, the pleasure relative to that faculty is the greatest possible.² In the exercise, for example, of the perceptive faculties there are certain conditions of proportion in the constituents of the object and a certain normal ratio between the object and the faculty which may not be transgressed with impunity: if it is exceeded, the result is less pleasure, or pain, or in extreme cases the destruction of the sense itself. In the exercise of thought there is a similar adaptation of the object to the faculty, but without any such limitation; for the more intellectual the

¹ ὁποκείσθω ἡμῖν, "let us assume that," etc. The view taken in the text was suggested by Cope, *Introduction to Aristotle's Rhetoric* (1867), who in Ap. D to Bk. I, pp. 234 ff. treats fully of the whole subject of Aristotle's varying expressions concerning the nature of pleasure and pain.

² *Eth. Nic.*, X, 4, 7.

object, the more it stimulates the faculty, and the greater, consequently, is the pleasure.¹ No faculty, however, is capable of continuous exercise, for as the novelty wears off the activity is relaxed and the pleasure is correspondingly diminished. But the general principle applies not only to the special activities of the cognitive faculties, but to the totality of the individual's vital functions, life being described by Aristotle as a perpetually renewed exercise of faculties. Pleasure is the accompaniment of the free, unimpeded expression of the natural capacities, pain the accompaniment of conditions detrimental to such expression. This, in terms of faculty and function, is Aristotle's new rendering of the old doctrine that pleasure is according to nature and pain contrary to nature.²

Three things in this theory are particularly worthy of remark. (1) Pleasure (and by inference pain) is not a special faculty or the realized expression of such faculty. There is no special sense of pleasure the exercise of which is required by the conditions of life.³ It is an accompaniment, a complement, something superadded and attached, when the normal functions of life are being fulfilled. Aristotle puts it thus: "Pleasure completes the activity . . . as a kind of supervenient finality, like the bloom that is set on youth."⁴ As the peculiar charm which belongs to the hey-day of life is not any one or all of the powers which coöperate to create the charm, so pleasure is not identical with, but an incident of, the exercise of the faculties to which it gives

¹ *De an.*, III, 2, 426 b 3 ff.; II, 11, 424 b 28.

² *Eth. Nic.*, X, 4, 9 f.

³ *Ib.*, 5, 7.

⁴ *Ib.*, 4, 8: τελειοῦ δὲ τὴν ἐνέργειαν ἡ ἡδονή . . . ὥς ἐπιγινωμένον τι τέλος, οἷον τοῖς ἀκμαίοις ἡ ὥρα. There is an apparent conflict between the assertion in this chapter that pleasure is ἐν ἐνεργείᾳ (cf. 5, 11, 1176 a 26; 5, 6, 1175 b 26), but not itself ἐνέργεια and what is said of it in VII, 12. There we read: "wherefore it is not proper to call pleasure a perceived process of origination (γένεσις), it should rather (ἀλλὰ μᾶλλον) be described as a realization of normally constituted faculty (ἐνέργειαν τῆς κατὰ φύσιν ἕξεως), with the substitution of 'unimpeded' for 'perceived.'" The contradiction may be toned down by considering the nature of the antithesis and what is implied in the ἀλλὰ μᾶλλον. The probability, however, is that Bk. VII, which parallels the discussion of pleasure in Bk. X with various modifications in doctrine, is not Aristotle's, but is derived, along with Bks. V and VI, from the Ethics of Eudemus. See Stewart, *Notes on the Nicomachean Ethics*, II, pp. 218 ff.

an added touch of perfection. The chief significance of this idea lies in its bearing on hedonism, which it is taken to refute. Psychologically it asserts the universal dependence of pleasure and pain on other functions of the organism. But it must not, on that account, be identified with any particular form of modern analytic theory, and especially not with that with which at first sight it may seem to have the closest affinity, the theory, namely, which makes these affections general 'attributes' of sensation or of other forms of 'consciousness.' Modern theory and discussion rests in the main on a conception of mental 'elements' of which the psychology of Aristotle, perhaps to its credit, knows nothing. (2) Aristotle's doctrine is an 'activity' doctrine; pleasure is a concomitant of the active exercise of the faculties. "The exercise of every sense is attended with pleasure, and so is the exercise of reason and the speculative faculty; and it is pleasantest when it is most complete."¹ The emphasis on the connection of pleasure with the realization of faculties is so strong that one is tempted to charge Aristotle with exaggeration and with failure to take account of the large class of pleasures connected with recreation and repose. And it is quite true that he does not take them sufficiently into account; he does not develop his doctrine in this direction. He does, however, notice them, telling us, for instance, that "all conditions of ease, comfort or inattention, amusements, recreations and sleep" are pleasures. And the explanation he seems to give of them is that they rest on processes which fulfil either natural or acquired tendencies and conform to the general conditions of life.² If, therefore, we are to characterize Aristotle's doctrine of pleasure as an 'activity' doctrine, it must be, apparently, in the broad sense in which 'activity' denotes any unimpeded vital process whatsoever. In the *Ethics* he emphasizes the pleasures of the cognitive processes, which afford, indeed, the readiest illustration of the thesis that pleasure is an accompaniment of function and not the function itself, and especially that it is not a mere process of restoration of a natural state previously impaired.

¹ *Eth. Nic.*, X, 4, 1174 b 20. Peters' tr.

² *Rhet.*, I, 11; cf. *Probl.*, 878 b 11: "the way to what is natural is sweet, if only it be perceived."

But he nowhere denies that a process of the latter sort is pleasant. His theory rather requires that it should be pleasant, so far, namely, as it can be regarded as an expression of the latent capacities of life and as going on without obstruction. Similarly of all other processes that can be viewed as realizing in any way any of the manifold conditions of normal life. Pleasure, he explains, completes the exercise of all the vital powers, and so completes life itself; pleasure and life seem constantly conjoined.¹

(3) Aristotle's doctrine is thus fundamentally 'biological.' But, it must be well noted, not in any narrow sense. The "soul" is, indeed, the "entelechy" of the body, but not its product; it is the formal and final "cause" of the physiological functions, not their efficiently produced "effect." Bodily processes, the "matter" of the psychical, are not the sole condition of the affections, and the intellect, although in man intimately bound up with sensible experience, is in its essential nature a thing apart. Aristotle's point of view is dynamic: life is for him a complex of functions, and the affections are related to these functions. It is wholly a secondary matter whether or not the functions of life are embodied. The incorporeal Deity, whose life is one of perfect and uninterrupted intellectual activity, experiences, according to Aristotle, the greatest and purest joy.² It is only, therefore, with this understanding that we may see in the doctrine that pleasure is a concomitant of the normal exercise of the faculties, and pain the contrary, the original of the modern view that pleasure is an index of favorable conditions and pain an index of disturbance in some or all of the vital processes of the organism. There are, it is well known, many objections to this view of which Aristotle was ignorant. The one obvious objection to his own view, the case of pathological pleasures, he does not appear to feel as an objection; they seem to him sufficiently explained by diseased conditions of the body or perverted dispositions of the mind.³

¹ *Eth. Nic.*, X, 4, 7.

² *Ib.*, X, 7, 3; *Met.* A, 7, 1072 b 14f.

³ He treats the question from the ethical point of view, assuming a normal man, ἀγαθὸς ἀνὴρ, as a standard. "In all matters of this kind," he says, "we assume that things are what they appear to be to the perfect man." Hence he

Aristotle, like Plato, holds that pleasures differ in kind. But while this view in Plato rests primarily on an ethical appreciation and is developed in the distinctions of pure and mixed pleasures and pleasures true and false, in Aristotle it appears as a consequence of the conception of pleasure as a concomitant and completion of the exercise of the faculties. As there are specific differences among the faculties, so, he argues, there must be corresponding differences among the pleasures arising from their exercise, for each pleasure perfects the use of its own faculty. To this abstract logical consideration others are added of a more empirical character. Thus it is observed that pleasure has a facilitating effect on the specific kind of activity it accompanies and an inhibitory effect on rival activities. If we take pleasure in any pursuit, such as music or geometry, we are much more likely to acquire proficiency in it. On the other hand, a lover of the flute, whenever he hears the sound of it, can hardly be made to attend to an argument. And in general the pleasanter activity so preoccupies the mind that attention at the time to any other subject less pleasant is difficult. Such pleasure, says Aristotle, has almost the same effect on the rival activity as its own proper pain.¹ The argument makes plain that what Aristotle means by pleasure is the various ways of being pleased, the actual sense of agreeable hearing, seeing, remembering, thinking, etc. There are various ways of being pleased, consequently various kinds of pleasure. The 'pleasure' that is common to the different experiences is an abstraction, like 'color,' and has no actual existence. The pleasure that Aristotle has in mind is that which is specifically realized in specific modes of activity, and such pleasure is manifold. The dynamic effects of which he speaks are strictly, therefore, effects of the whole pleasant experience considered functionally. This functional view of pleasure, which reappears in various places in declares base pleasures, like perverted tastes in sickness, to be not pleasures at all "except to corrupt men"; *Eth. Nic.*, X, 5, 10 f. This is his version of Plato's "false" pleasures. Aristotle, it should be added, has other principles of explanation, namely, specific and individual constitutional differences (see *Eth. Nic.*, I. c.) and habit, a "second nature."

¹ *Eth. Nic.*, X, 5, 1-5.

Aristotle, makes it difficult to maintain rigidly the doctrine that pleasure exists only *in* the realization of function and is not itself the realization of a function, as in the seventh book of the *Ethics* it is declared to be.

Pleasures differ in purity, the degree of purity being measured by corresponding differences in the functions with which they are connected. Thus, sight is purer than touch, hearing and smell than taste, intellection than any activity of sense. Consequently the pleasures of the intellect are purer than those of any sense, and the pleasures of the senses differ according to their kind. Evidently the criterion of "purity" here is not, as with Plato, freedom from admixture with pain, but freedom from "matter" (ὅλη)¹. Independently of this distinction Aristotle also admits mixed states of pleasure and pain, the most conspicuous illustrations of which are found in the emotions, *e. g.*, the tragic emotions of pity and fear. Considerations similar to those which derive differences in pleasure from the particular functions they attach to lead to the conception of differences of pleasure relative to the life-function of one species of sentient being as compared with another and of individual differences among members of the same species; but the facts are noted only as a background for the conception of a normal life-function for man, and to mark the ethical distinction between the pleasures proper to it and the "false" pleasures of the profligate.² Aristotle, further, accepts the current distinction between bodily pleasures and pleasures of the soul. Under the former he includes those connected with a purely human exercise of the senses, what we may call æsthetic pleasures, as well as those common to all animals and related to conservation and reproduction, such as the pleasures of eating, drinking and the sexual appetite. Under the latter he includes such pleasures as those arising from gratified ambition and the love of learning, the pleasure of successful revenge (its failure is unpleasant), of victory (since it gives us a sense of superiority), of honor and reputation in the opinion of the competent, of flattery, and the

¹ See Stewart, *op. cit.*, II, p. 435.

² *Eth. Nic.*, X, 5, 10 f.

pleasure in things similar and cognate.¹ Aristotle curiously derives self-love from this last, since, as he says, everyone occupies the relation of the similar and the cognate in a preëminent degree towards himself.²

As a psychical experience all pleasure is, of course, an "affection of the soul."³ The "part" of the soul to which it is referred is sense (*αἰσθησις*). the Greek term, be it remembered, having all the breadth and indefiniteness of our 'feeling.' The admission of pure pleasures of the speculative intellect would seem to imply an intellective or spiritual feeling. Sometimes, however, Aristotle insists on the relation of all pleasure to bodily sensation. For pleasure, he says, is either in present action, in which case it is a direct sensible experience excited by a sensibly perceived object, or in memory or anticipation, which are dependent upon such experience. The objects of memory are pleasant not only if they were pleasant at the time, but also if they were pleasant in their consequences. Objects of anticipation are pleasant if pleasant consequences are expected from them. But whether relating to a present object or to one past or future, pleasure itself is a sensible experience, the ideal feeling differing from the actual only in degree.⁴

Besides the relations of pleasure and pain to the cognitive processes, they are also intimately connected with conation. Mere sensation, says Aristotle, is like bare thinking, or the simple uttering of words; but if it is pleasant or painful, the soul, as if affirming or denying, pursues or avoids. Being pleased or pained is thus being active in respect to good and bad in the medium of sense.⁵ Indeed, so intimate is the connection of these feelings with active tendency that they are expressly assigned,

¹ *Op. cit.*, III, 10, 2., II, 8; *Rhet.* I, 11.

² Gomperz, *Gr. Denker*, III, p. 336, cites this as illustrating a certain *Verschrobenheit* in Aristotle which is further exemplified by his artificial deduction of the pleasure of a reputation for wisdom from the power it gives us over others, since we all like to rule. Gomperz remarks that it does not always have this effect and that Aristotle might have derived the pleasure more directly from the pleasure of superiority, of which he had previously spoken.

³ *Eth. Nic.*, I, 8, 10.

⁴ *Phys.*, VII, 3, 247 a 7f; *Rhet.*, I, 11.

⁵ *De an.*, III, 7, 431 a 8 ff.; *cf.* II, 3, 414 b 4. *Pol.*, I, 2, 12.

on occasion, to the sense faculty of appetite.¹ But besides sensuous conation Aristotle recognizes a conation of the rational will. In the contemplation of an intelligible object the mind is affected by a spiritual pleasure inseparable from a spiritual conation. There is a similar relation of pleasure, pain and conation through imagination. The pleasure that arises from the normal exercise of any function and the pain that arises from excess or defect in its exercise set up movements of approach or avoidance, beget tendencies of desire or aversion, the satisfaction or thwarting of which are themselves attended with pleasure or pain. Thus under the influence of these affections the manifold impulses, inclinations, desires are created, strengthened, checked, organized, developed and expressed. Every man, says Aristotle, is actively concerned with the things he chiefly loves; in these he takes pleasure; and the pleasure completes the activity and the life whose tendency it manifests.² It is this which makes the regulation of pleasure so important ethically; pleasure consolidates or suppresses tendencies, but does not of itself determine what tendencies it is desirable to further or inhibit or how the different tendencies are to be related in an ideally perfect human life. We are not concerned here with Aristotle's ethics; the point of psychological interest is that pleasures and pains are regarded as capable of voluntary control, pleasure more easily, it is held, than intense pain.³ How more precisely the control is brought about is something of a mystery. Aristotle's disposition to separate the powers of the soul into distinct faculties obscures the conception of organic relations between the different mental processes and between these and the bodily processes which underlies his view of psychology as a whole, and which it was his great merit to have introduced in his designation of the soul as the body's form and entelechy. His conception of pleasure and pain as concomitants respectively of free and

¹ *Top.*, IV, 5, 126 a 9: ἐν τῷ ἐπιθυμητικῷ. In the same context shame (αἰσχύνη) is connected with the thinking faculty (τὸ λογιστικόν) and fear and anger with the spirited faculty (τὸ θυμοειδές). This division of faculties—Plato's—Aristotle in his doctrine of affection usually disregards.

² *Eth. Nic.*, X, 4, 1174 b 20; I, 8, 10.

³ *Ib.*, X, 12, 1 f.

impeded vital function remains as a permanent acquisition of scientific psychology, needing, however, more concrete definition through observation of all the facts without neglect of the negative instances; much of what he says concerning the relations of pleasure and pain to other aspects of mental and bodily life also remains, though the subtlety of the connections and the continuity in the processes require a formulation free from the disturbing suggestions of distinct and separate 'faculties.'

Turning now to the subject of the emotions or passions, we find Aristotle including under the term *πάθη* a variety of affectional states, dispositions and qualities for the grouping of which together it is not easy to discover a principle. Fifteen of these are treated in some detail in the second book of the *Rhetoric*, where they are arranged mostly in pairs: anger and placability, love and hate, fear and confidence, shame and shamelessness, benevolence and churlishness, pity and resentment; the last three, envy, emulation and contempt, are also correlated, emulation being regarded as in a sort the reverse of envy, and contempt the antithesis of emulation. The list is not, and is not intended to be complete, for in other connections we find, *e. g.*, joy and longing, enthusiasm and "spirit" (*θυμός*), of which anger and resentment would be expressions, and even appetite (*ἐπιθυμία*) used to illustrate the same general kind of mental fact.¹ It is difficult to distinguish some of these "passions" from the virtues and vices which are said not to be "passions" (*πάθη*), but formed habits of the soul (*ἔξεις*). Nor does Aristotle himself appear to be wholly consistent. Thus gentleness (*πραότης, πρᾶνσις*) is treated in the *Rhetoric* as a passion, whereas in the *Ethics* it is classed with the moral virtues and discussed as such, being defined as a kind of moderation in respect to anger, with the vice of wrathfulness as its opposite. Benevolence, one would suppose, would be regarded as a virtue on any theory; yet it is entirely absent from the list of the virtues treated in the *Ethics* (II-IV) and is grouped with the passions in the *Rhetoric* (II, 7), where it is described as that which leads one to render a disin-

¹ *Eth. Nic.*, II, 4 (5), 1105 b 20 ff.; *de an.*, I, 1, 403 a 16 f.; *Pol.*, VIII, 5, 1340 a 11, *Cf. Magn. mor.*, I, 7, 8; *Eth. Eud.*, II, 2, 1220 b 10 ff.

terested service to another in the hour of need. Modesty or shame (*αἰδώς*) is discussed in the *Ethics* (IV, 9) in connection with the virtues, the reason given being that the modest person is praised as maintaining the mean between bashful shyness and shamelessness. Here shamelessness, which in the *Rhetoric* figures as a passion, appears as a sort of vice. The opposite, shame, however, is declared not to be, in the strict sense, a virtue, "since it resembles a passion (*πάθος*) rather than a formed habit of soul (*ἕξις*);" it is held, in fact, to be a sort of physical instinct, "a kind of fear of disgrace with effects resembling those of the fear aroused by danger: men blush when ashamed, when terrified they turn pale."¹ We are not surprised, therefore, to find that in the *Rhetoric* shame is treated along with its opposite among the passions. Resentment or virtuous indignation (*νέμεσις*) appears both as a virtue and as a passion.²

This apparent confusion is partly due to the ambiguities of language, the same term being used to designate different things, or the same thing viewed in different ways. Back of it lies a genuine attempt on Aristotle's part to distinguish these differences. "There are," he says, "three sorts of mental facts (*τὰ ἐν τῇ ψυχῇ γινόμενα*), passions (or affections, *πάθη*), faculties (capacities, potentialities, *δυνάμεις*), and formed habits (dispositions, characters, *ἕξεις*). By (1) 'passions' I mean appetite, anger, fear, confidence, envy, joy, hate, longing, emulation, pity, and, in general, states accompanied by pleasure and pain. (2) A 'faculty' is that in respect of which we are said to be capable of being affected in any of these ways, *e. g.*, in respect of being angered or pained or feeling pity. (3) A 'formed habit' is that in respect of which we are well or ill regulated in our 'passions,' for example, as regards anger we are ill regulated if we are either too violent or too slack, but we are well regulated, if our anger is in moderation. And so with the rest."³ According to this the passions occupy a mean between the predisposing susceptibilities and the habits which are formed by their repeated exercise.

¹ *Eth. Nic.*, IV, 9, 1 f.; *cf.* II, 7, 1108 a 21.

² *Rhet.*, II, 6; *Eth. Nic.*, IV, 7, 1108 b 1 ff.; *Rhet.*, II, 9, 1386 b 9 ff.

³ *Eth. Nic.*, II, 4 (5), 1105 b 20 ff.; *cf. Magn. mor.*, I, 7, 8. *Eth. Eud.*, II, 2, 1220 b 10 ff. Plutarch, *de virt. mor.*, 4.

Habits are also capacities of behavior, but capacities formed and fixed as features of character. They show how well or how little the passions in a man are under the control of an ideal principle and are hence subjects of the moral attributes of praise or blame, virtue or vice. It is easy to understand, therefore, how Aristotle can say that the virtues are not passions, and yet declare that the two have much in common.¹ The distinction is not always represented by the name; the same name may be applied to both. But there is one thing which characterizes every virtue that is not characteristic of the passions, and that is the element of choice. "The virtues are in a sort choices, or at least they are not independent of choice (*προαίρεσις*), "they result in part from determinations of the will, whereas we may, *e. g.*, be afraid or angry involuntarily (*απροαιρέτως*)."² Aristotle speaks of the "irrational" passions (*τὰ ἄλογα πάθη*) and frequently contrasts a life that is according to passion (*κατὰ πάθος*) with one that is conformed to reason (*κατὰ λόγον*); but he is far from suggesting the Stoic inference that the passions must be suppressed; he regards them rather as so much material to be brought under rational control.²

With all this, however, we are still far from a positive conception of "passion." It arises from a "faculty," but so in a way does every other manifestation of the psychic life. It is not a "habit," from which we conclude that it is a temporary and transient expression of its capacity; but this is true of the actual expression of every mental power. Why are not the expressions of the "habits" passions? What difference does it make to the nature of a passion to be frequently repeated so that its original potentiality becomes fixed in a disposition of the character? Well, there *is* a difference, especially in the case of the virtuous dispositions, as Aristotle clearly points out. The habit is not formed *merely* by repetition; it is formed in relation to the whole organization of experience, the developing knowledge of the

¹ *Eth. Nic.*, II, 4(5), 1106 a 3; X, 8, 1178 a 15. Hence remarks on the passions are naturally included in the chapters (III, 6-IV) which treat of the moral virtues. Wundt, *Phys. Psych.*, III, p. 239, finds in these chapters the beginning of a psychology of the emotions, but omits to mention the fuller treatment in *Rhet.*, II.

² *Eth. Nic.*, III, 3, 1111 a 1; *cf.* I, 1, 1095 a 8, VIII, 3, 1156 a 32, etc.

individual and the pressure of the social environment. It is formed in the light, used or misused, of ideals, and it is these which give to it its moral character. Hence there is a difference, for example, between the resentment or benevolence which springs up sporadically from a natural inclination and the resentment or benevolence arising from settled habits developed under the guidance of ideas. Nevertheless, if we abstract from the relations, occasions and manner of their manifestation, it can hardly be denied that the phenomena in the two cases present a psychological identity, an identity particularly manifest in the ill regulated vices as compared with the like phenomena before they acquired moral character. Aristotle himself calls enthusiasm a passion of the "ethical" part of the soul and pity and indignation passions of virtue.¹ We are ready to conclude, then, that although primary potentialities or "faculties" and formed habits of soul are distinct as regards both originality and organization, the phenomena called "passions" which are said to arise from the one may and do arise from the other also. None, possibly, ever occurs unless grounded in some constitutional tendency; but not every expression of a native tendency appears to be regarded by Aristotle as a "passion." What, then, determines the class to which he gives the name?

To this question he supplies no satisfactory answer. He defines "passions" in the passage quoted by naming a number of the things he regards as such and by a general reference to states attended with pleasure and pain. In the *Rhetoric* he defines them also, and, primarily, as states that radically affect judgment, a feature which especially commends them to the rhetorician and the student of politics.² The particular "passions" are defined very largely as species of pleasure and pain. But they differ from pleasure and pain as such in that, besides being evidently more complex, they are "motions of the soul," and not mere complements of a function.³ Some of them are defined as pains or perturbations. Many of them have a markedly

¹ *Pol.*, VIII, 5, 1340 a 11.

² *Rhet.*, II, 1, 1378 a 20 f.; *Pol.*, III, 15, 1286 a 33.

³ κινήσεις ψυχῆς, *Pol.*, VIII, 7, 1342 a 8; cf. 5, also *de mem.* I, 450 b 1.

conative character; they express appetites, tendencies, strivings; they include appetite (ἐπιθυμία) and "spirit" (θυμός), into which Plato had distributed the whole of the "mortal" soul, and these impulses expand into many special passions besides.¹ Finally, they are all "materialized notions" (λόγοι ἐνυλοὶ), *i. e.*, mental states or processes so connected with bodily processes that they can be described as being either the one or the other, while to be fully described both aspects must be taken into account; thus,—to use Aristotle's own illustration—anger is defined "logically" as a propension to retaliation, but "physically" as an ebullition of the blood about the heart.² Along with this, however, we have a special class of "somatic passions" (σωματικά πάθη) to which the pains of want and the pleasures of replenishment are referred and which may reasonably be supposed to include the appetites of hunger, thirst and sex;³ and although the corresponding term "psychic passions" does not occur, it seems to be implied in the description of the passions in the *Rhetoric* that they are what in the discussion of pleasure Aristotle called pleasures (and pains) of the soul.⁴ But from all this we get no clear idea of a distinct class of mental phenomena such as might conceivably be derived from a careful psychological analysis. Much of what is said applies generally to all mental phenomena, *e. g.*, to sense-perception. What we find is rather a broad classification with indications of subordinate groupings in which, however, conations of various kinds, pleasure and pain, emotion, passion and sentiment are confused. The explanation of this lies deep in Aristotle's 'logical' way of thinking in approaching the problems of psychology. The soul is for him a real entity (οὐσία) with a definable essence which actively expresses itself in modes (ἐνέργειαι) which are the realization of its proper function or end (ἔργον, τέλος). Now the "passions" (πάθη) do not belong to the "essence" of the soul; they are rather ways in which it is

¹ The summary statement, "By πάθη I mean anger, appetite and the like" is in this connection not without significance. *Rhet.*, II, 12, 1388 b 33.

² *De an.*, I, 1, 10, 403 a 25-b 8.

³ *Eth. Nic.*, X, 3, 6, 1173 b 9. The term σωματικά πάθη is also used in another sense, namely, of such determinations of body as largeness, smallness, softness, roughness, etc., *de part. an.*, I, 4, 644 a 13.

⁴ See Cope, *Aristotle's Rhetoric*, note on II, 1, 8.

"affected." Hence, although Aristotle warns us that we must not neglect the "passions," since they reflect light on the essence, it evidently depends very much on our prior conception of the soul's essence what we decide to contradistinguish from it as its passions. Aristotle's conception leads him to a very wide use of the latter term, one of its uses being to designate roughly what we, also for the most part very roughly, are accustomed to call emotions. But as we have seen, and as will further appear from the definitions to be presently given, this class of "passions," often spoken of as the passions generally, is of varied nature and indeterminate extent.¹

In discussing the passions selected for special examination in the *Rhetoric* Aristotle does not pretend to give a complete scientific account of them, such as would satisfy his own conception of scientific method, much less does he approach the subject from the point of view of a modern analytical psychologist. He neglects altogether the 'physical' aspects of the passions and deals with them 'logically' by definition and description with reference to their usual objects, occasions and circumstances in a manner suited to the purposes of the rhetorician. His point of view, therefore, is that of a keen observer of human nature arranging his observations in some kind of classified order. For this sort of descriptive writing he sets the standard. Later writers, whether accepting or modifying his definitions, followed in the main his method for centuries. Certain of the passions, as, *e. g.*, anger, were treated more fully and the passions in general were more systematically classified. Classification was pre-eminently the work of the Stoics. But so thoroughly did Aristotle do his work that in writings still extant we find none which surpasses it in abundance and sharpness of detail till we come in the Middle Ages to the great treatment of the subject by Thomas Aquinas.

In what follows it must suffice to note the definitions and a

¹ On Aristotle's use of the terms *πάθος* and *πάθημα*, see Bonitz, *Ind. ar.*, s. v., *Arist. Studien*, V. Etymology has suggested the use of 'passions' in the text; the broader term would be 'affections.' The historical student of psychology will not overlook the connection of both these terms with Aristotle's conception of the soul as *ὁψία*.

few of the more important observations. *Anger* (ὀργή) is "an impulse attended with pain to avenge openly an undeserved slight openly manifested towards ourselves or our friends." The pain, however, which arises from the consciousness of frustrated desire, is only the predominant affection; there is besides an element of pleasure in the expectation of revenge. The objects of anger are individuals; the slight may be contempt, spite or insolence. Seasons, times, temperaments and periods of life condition the passion. *Gentleness* or placability (πράνσις) is "a settling or quiescence of anger," arising, *e. g.*, from lapse of time, or from the mood induced by mirth or prosperity, or from pity on seeing the object of our anger suffer greater injury than the anger itself would have inflicted. *Love* or friendliness (φιλία) consists in "wishing a person all the things you consider good, not for your sake, but for his, and readiness, so far as in you lies, to bring them about." *Hate* or enmity (ἐχθρα) is the opposite. Hate differs from anger in several respects. In anger we are moved by personal offences; we may hate a man solely for his character. Anger is concerned with individuals; hatred may be directed towards a class. Anger seeks to make the evil it inflicts manifest; to hate the exhibition of the evil is indifferent. Anger is necessarily painful, not so hate. Anger, finally, is not inconsistent with compassion; but if you hate a man, you aim at his destruction.

Fear (φόβος) is "a kind of pain or perturbation arising from the idea of impending evil hurtful to life or at least painful." Aristotle dwells particularly on the different circumstances which excite this feeling towards persons, such as their criminality, enmity, rivalry; he notes too an indirect source of it in compassion: what excites compassion when it happens or threatens to happen to others appears, generally speaking, as a thing formidable to ourselves. Aristotle makes use of this fact in his theory of tragedy. *Confidence* (θάρσος) is the opposite of fear, being a kind of hope attended with the idea of things salutary as at hand and of things formidable as either absent or remote. *Shame* (αἰσχύνη) is "a kind of pain or perturbation in reference to evils past, present or future, that are thought to tend to discredit (ἀδοξία)."

Shamelessness (ἀναισχυντία) is disregard of and indifference to such things. Shame may be excited not only by acts which we condemn ourselves, but also by those deemed disgraceful by others. Before intimates we are ashamed only of things really shameful, before strangers of things that are conventionally so. But we must hold the persons and their good opinion in some regard; we do not feel shame before those whose opinion we despise. Regard for the consequences of others' opinions is also, in Aristotle's view, a potent factor, for we feel shame, he says, in the presence of slanderers and tell-tales, satirists and comic poets. *Benevolence* (χάρις) is the feeling "which leads one to render service to another in time of need, not to repay past services or to obtain future rewards, but solely for his benefit." Past services, however, may be the occasion of its exercise, in which case it is gratitude. Its opposite is ill-will or churlishness.¹ *Pity* or compassion (ἐλεος) is "a kind of pain at the sight of great and undeserved misfortune in another, such as we deem liable to befall ourselves or any of our friends or relatives, and especially when it appears imminent." It is not felt either by the utterly miserable or by those who are enjoying supreme felicity; it requires a sense of liability to suffer and is found in those who have experienced suffering, are somewhat advanced in years, are physically weak or constitutionally timid, who have parents, wife or children living, etc., and it implies belief in the existence of human virtue. Further, its object must not be too nearly related to us, for then the feeling is akin to that which we should have in similar circumstances for ourselves, namely, fear or horror. Aristotle tells the story of a Persian general who wept at the sight of his friend's beggary, but not when he saw his own son led out to death. *Resentment* or indignation (νεμεσᾶν, νέμεσις), the correlative of pity, is pain at the sight of unmerited prosperity. This is a noble sentiment, not found in slavish, mean or unambitious natures. It is, therefore, sharply differentiated from *Envy* or malice (φθόνος), where the feeling of pain at the prosperity has no regard to the merit of its possessor, but solely to the fact that another, our equal or similar, enjoys certain advantages.

¹ χαρίσασθαι καὶ ἀχαριστέιν, 1385 b 10.

Envy is not especially limited to the poor; it is found in the ambitious and mean-minded, including persons engaged in important affairs or highly prosperous, but who think that the world is robbing them of their dues, and it is directed towards those who are near to us in time, place, age or reputation, who are our rivals, who have attained a rapid success, whose success is our reproach, etc. *Emulation* (ζήλος) is "a kind of pain at the sight of goods which we value and might acquire when possessed by another naturally resembling ourselves, not because he possesses them, but because we do not." This, like resentment, is also a noble passion, being a spur to increased activity in the pursuit of worthy ends. The antithesis of emulation is a supercilious *Contempt* (καταφρόνησις).¹

Following these definitions and observations Aristotle treats of the influence of the passions on the different periods of life, giving an admirable popular description of the common emotional characteristics of each, especially those of youth and old age; he notes, among other things, how the same emotion may spring up in different periods from different impulses, pity, for example, from generous good-nature in youth, from feebleness and a disposition to fear all manner of evils to themselves in the old.² But it must suffice to refer to this in passing. There is one other topic which must be touched on before concluding this part of our subject, Aristotle's teaching concerning the peculiar emotional effect of tragedy. What he says on this topic is tantalizing in its brevity. It is simply this, that tragedy, by exciting pity and fear, aims at a "katharsis" of such emotions,³ one of its effects being to alleviate these usually painful feelings with pleasure (κουφίζεσθαι μεθ' ἡδονῆς.) Much has been written to elucidate the meaning of this teaching and the controversy is still from time to time renewed. Since the thoroughgoing investigation of the subject by Bernays this much at least may now be regarded as settled: we must not follow Lessing in referring the "katharsis" to a moral purification of the character in respect to pity and fear and emotions of a similar nature generally, but

¹ *Rhet.*, II, 2-10.

² *Ib.*, 11 f.

³ *Poet.*, 6: δι' ἐλέου καὶ φόβου περαίνουσα τὴν τῶν τοιούτων παθημάτων κάθαρσιν.

must take the term in the medical sense, and the process indicated as limited to the emotions excited at the time by the tragedy itself.¹ The rest is largely conjecture. Aristotle possibly had in mind the teaching of the Hippocratean school regarding the process which takes place in the cure of disease; this school held that disease was eliminated by the morbid matter being "concocted out," it being thereby first raised to a condition of more intense activity.² Aristotle seems to be thinking of this analogy when he speaks of the effect of orgiastic music on persons suffering from religious frenzy; he represents the music as effecting a purgation (*κάθαρσις*) of the morbid state and a consequent alleviation of soul; and music, he says, has a similar effect on pity and fear and other emotions.³ If he conceived the action of tragedy in a similar way, his thought would be something like this: the spectators enter the theatre with susceptibilities to certain emotions which in real life are painful and burdensome; the tragedy represented on the stage excite these emotions in a very high degree, but, if properly constructed and acted, it excites them in such a way that the painful element is purged away and the final result is pleasing and satisfying. It is not necessary to suppose that he regarded pity and fear as literally diseases; the analogy must not be pressed. And it will be generally admitted that a true tragedy does produce some such effects quite apart from the antiquated medical analogy. But it is also obvious that we have here no adequate account of the psychology of the process. Even if we allow that the tragic pathos contains as its essential ingredients pity and fear, or rather commiseration and horror, we find no explanation of the all-important difference between these feelings as æsthetically experienced and similar feelings when aroused by the dread events of real life. Aristotle may possibly have conceived the relief as brought about "by an appropriate adjustment of responsibilities and

¹ J. Bernays, *Grundzüge der verlorenen Abhandlung des Aristoteles über die Wirkung der Tragödie*, 1858, and a number of subsequent writings; Lessing, *Hamburgische Dramaturgie*, 75-78. Bernays' interpretation does not necessarily deny an effect on the character; only it was not of this that Aristotle was thinking.

² A view also found in Plato. See Siebeck, *op. cit.*, p. 94 f., with references to Hippocrates, ed. Littré, I, p. 444; Plato, *Rep.*, X, 606. A, *Laws*, VII, 790 A.

³ *Pol.*, VIII, 7, 1342 a.

actions" exhibited in the development of the characters and the plot;¹ but this is doubtful. Probably he thought no small part of it due to the representation as such, for he elsewhere in the *Poetics* observes that we naturally take pleasure in imitation;² but this is clearly insufficient.

Turning now from the 'logical' to the 'physical' side of the emotional process, we find little on the subject in the genuine writings of Aristotle, but a good deal in the *Problemata*, which embody the Peripatetic tradition, and in the works of other adherents of the school whose opinions it will be convenient to indicate in a general way here. The special contribution made by Aristotle himself was in the development of the doctrine of the pneuma. He holds the pneuma to be the congenital source of all vital power in the organism. By its spontaneous contraction and expansion it moves the limbs of the body mechanically.³ It is the vitalizing material principle, the source of the animal heat, with its special seat in the heart, the power also by which the parts of the organism are differentiated in the embryo, and with its differences are correlated the differences of honor and dishonor in souls. It is not composed of the ordinary corporeal elements, but is of a nature akin to that of the stars.⁴ As the source of heat it is naturally bound up with the blood, and differences in the quality of the blood, according as it is warm or cold, thick or thin, and, especially, pure or impure, affect the whole mental and physical constitution.⁵ Timidity is due to a thin, watery condition of the blood; the chill of fear comes from the congelation of the water. Bloodless animals are as a rule more timid than sanguineous and show the symptoms of fear in a marked degree; they become motionless, discharge the excrements and, in some cases, change color.⁶

¹ As maintained, e. g., by A. W. Benn, *Aristotle's Theory of Tragic Emotion*, Mind, N.S., 23, 84-90. 1914.

² 1449 b 24; 1453 b 12.

³ *De motu an.*, 10, 703 a 6 ff., reading *κινῶν*, not *κινῆν* (Bon.).

⁴ Namely, ether. *De gen. an.*, II, 3, 741 b 37, 736 b 29 ff.

⁵ *De part. an.*, II, 4, 651 a 12 ff.; cf. 667 a 9 ff., where Aristotle speaks of the influence of the anatomical character of the heart as affected by the vital heat on the emotional dispositions of courage and timidity.

⁶ *Ib.*, 650 b 20 ff.

The *Problemata* give a list of the symptoms of fear in man that rivals in extent that found in Darwin or any other modern writer: cold and shivering, pallor of countenance, trembling of the body, of the hands, of the lower lip, trembling and shrilling of the voice, thirst, disturbed action of the heart—the pulsations becoming rapid (πυκνή) and pricking (νυγματώδης)—the drying up of the saliva, paralysis of the tongue, abnormal secretions of bile, puckering of the skin in the body generally and, in particular, in the scrotum, loosening and discharge of the bowels and bladder, breaking of wind, contraction of the testicles and emission of semen. The prominent cause assigned to all these phenomena is a redistribution of the vital heat consequent on the withdrawal of the blood from the upper to the lower parts of the body and from the surface to the interior, the result being that the former parts are abnormally chilled, the latter abnormally heated. Thus the trembling of the voice is explained by the spasmodic action of the heart as the sustaining heat is withdrawn, causing a rapid succession of pulsations to be sent to the vocal organs instead of a single stroke. The shrilling of the voice is due to inability to set a sufficient quantity of air in motion, this loss of power being involved in the diminution of the vital heat. The thirst of fear arises from the excessive heating of the parts in the region of the stomach; the relaxation and discharge of the bowels and bladder come from a like excess of heat in the lower viscera, heat tending to liquefy as cold to solidify. A difficulty was found in the fact that different emotions have the same or similar symptoms. Thus the heart is disturbed not only in fear, but in rage. But there is a difference, it was said: in fear the heat is withdrawing downwards, hence the rapid, pricking movements; in rage, on the other hand, it is crowding in upon the heart, hence the ebullition and tumult of the passion. Again, there is trembling of the voice due to departure of heat from the heart not only in fear, but in grief or distress (ἀγωνία), but with this difference, it is said, that in fear the pitch of the voice is high, in distress low. The ingenious explanation assigned for this difference is that the heat in distress mounts upwards instead of descending as in fear, evidence for this being found in the blush

of shame, a species of distress; but when the heat ascends, it compacts the vital breath (pneuma) used in vocal utterance and that, being more slowly emitted, gives a lower pitch.¹ Another point in which fear and distress agree—and also anger—is in the matter of thirst; but it is noted that in fear, *e. g.*, in the panic of soldiers, the thirst demands abundance of liquid for its satisfaction, whereas in distress, and also in anger, all that is required is a swallow or a rinsing out of the mouth. The explanation is that in distress and anger the thirst is due to the withdrawing of the blood from the tongue and is, therefore, only a quasi-thirst and not the real thirst due to the exhaustion of the liquids in the stomach, as in the case of fear. The cardinal point to be explained, of course, was the movement and direction of the heat. Why, for example, does it withdraw downwards and inwards in fear? The answer is that the vital heat is animated, and so, like a living creature, seeks to escape from that which threatens it; but as the object of fear is outside the body, the heat naturally moves inwards.²

Aristotle must not be held responsible for these special observations and explanations, though we may fairly ascribe to him the general direction which they follow and which was followed in the school for generations. Thus in the *Problems* falsely ascribed to Alexander of Aphrodisia (c.200 B.C.) we find a number of the same and similar questions raised and essentially the same principles used to solve them. Here “nature,” which, following the usage of Hippocrates, appears as the synonym of the pneuma or physical soul, plays a prominent part in the crude teleologico-biological explanations. We turn pale in fear because “nature” and the provident force of the body seek the body’s safety by retreating downwards, as we, when in danger, take refuge in our houses. We color in joy because “nature,” self-taught, goes out to meet the object of pleasure as we go to meet a friend or a child. We blush in shame because “nature,” with a certain instinctive consciousness of evil, decently retires,

¹ It may be noted that Zeno the Stoic is reported as regarding voice as a special faculty due to the pneuma stretching from the ruling faculty of reason or intelligence to the vocal organs. Nemesisius, *De nat. hom.*, p. 96; Aetius, IV, 21, 4.

² *Probl.*, XI, 31, 32; XXVII.

like a well-born maiden, to the interior and inferior part of the body, and the blood, separating and diffusing itself, invests the body like a covering veil, as the maiden covers her face with her hands. Fantastic as these speculations appear, they nevertheless contain the germs of the idea that the organic expressions of the emotions are essential parts of the phenomena to be studied and that they arise in the main instinctively and spontaneously with reference to the welfare of the organism. This idea could not be duly developed until for notions of hot and cold, dry and moist, "nature," pneuma, vital heat and the physical soul there were substituted more precise conceptions of the nervous system with its sensory, motor and vaso-motor functions, and of the whole organism as related to its environment through a process of evolution. But this is a late achievement of the present time, and we are still far from the solution of the problems of emotion. The imperfect physiology of the ancients naturally led to much futile writing; on the other hand, the interest taken in the study of the phenomena led to some not unimportant observations of fact and not infrequently to explanations which were correct in principle. The same writer who compares the blush of shame to a girl's hiding of her face with her hands notes with scientific acuteness the closing or semi-closing of the eyes in the enjoyment of voluptuous pleasure, ascribing the phenomenon to the withdrawal of energy, or as we should say attention, from external perception and its absorption in the voluptuous sensations themselves, and explains the sighs of grief, love and anger as phenomena of physical oppression and relief involving at once the condition of the lungs and of the heart.¹

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¹ The numbers in the Ps.-Alex. *Problemata* treating of the physical phenomena of the emotions are I, 11-16, 19-21, 31, 102, 105, 118; II, 26, 35.